

SYSTEM AND METHOD FOR COMPRESSING DATA

Abstract of the Disclosure

Systems, devices and methods are provided to compress data, and in particular to code and decode data. One aspect of the present subject matter is a data structure. The data structure includes a field representing a decoding structure to decode canonical Huffman encoded data, and a field representing a symbol table. The decoding structure includes a field representing an accelerator table to provide a 2^N -deep direct-index lookup to provide high-frequency symbols for high-frequency data and to provide bracketing indices for low-frequency data. The decoding structure also includes a field for a binary search table to provide a low-frequency symbol index using a binary search bounded by the bracketing indices provided by the accelerator table. The symbol table is adapted to provide a symbol associated with the low-frequency index.

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